ANNALES ZOOLOGICI FENNICI

Vol. 23 • 1986

PUBLISHED JOINTLY BY

FINNISH ACADEMY OF SCIENCES
SOCIETAS PRO FAUNA ET FLORA FENNICA

SOCIETAS SCIENTIARUM FENNICA
SOCIETAS BIOLOGICA FENNICA VANAMO

RAUHANK. 15 B, SF-00170 HELSINKI, FINLAND

Contents

Bondrup-Nielsen, S.: Analysis of spacing behaviour of females from a live-trapping study of *Clethrionomys gapperi* 261–267
Gyllenberg, G.: the influence of oil pollution on three copepods at Helsinki, Finland 395–399
Haukisalmi, V.: Frequency distributions of helminths in microtine rodents in Finnish Lapland 141–150
Helle, P.: Bird community dynamics in a boreal forest reserve: the importance of large-scale regional trends 157–166
Helle, P. & Mönkkönen, M.: Annual fluctuations of land bird communities in different successional stages of boreal forest 269–280
Hippa, H.: Morphology and taxonomic value of the female external genitalia of Syrphidae and some other Diptera by new methodology 307–320
Hippa, H., Koponen, S. & Oksala, I.: Revision and classification of the Holarctic species of the *Ozyptila rauda* group (Araneae, Thomisidae) 321–328
Huhta, V., Hyvönen, R., Kaasalainen, P., Koskenniemi, A., Muona, J., Mäkelä, I., Sulander, M. & Vilkamaa, P.: Soil fauna of Finnish coniferous forests 345–360
Itämies, J., Kyrki, J. & Pulliainen, E.: Flight pattern of *Entephria caesiata* (Lepidoptera: Geometridae) in E Finnish Forest Lapland 151–156
Järvinen, O.: Ernst Palmén 70 years 98–99
Korpimäki, E.: Seasonal changes in the food of the Tengmalm's owl *Aegolius funereus* in western Finland 339–344
Markkula, I.: Comparison of the communities of the oribatids (Acari: Cryptostigmata) of virgin and forest-ameliorated pine bogs 33–38
Nakari, T., Soivio, A. & Pesonen, S.: The seasonal variations in the *in vitro* metabolism of ^{14}C-pregnenolone in 2-year old rainbow trout (*Salmo gairdneri* R.) ovaries 329–333
Niemelä, J., Haila, Y. & Ranta, E.: Spatial heterogeneity of carabid beetle dispersion in uniform forests on the Åland Islands, SW Finland 289–296
Nikinmaa, M.: Control of red cell pH in teleost fishes 223–235
Nilsson, C.: The occurrence of lost and malformed legs in mayfly nymphs as a result of predator attacks 57–60
Nilsson, A. N.: Community structure of the Dytiscidae (Coleoptera) of a northern Swedish seasonal pond 39–47
Pajunen, V. I.: Distributional dynamics of *Daphnia* species in a rock-pool environment 131–140
Pankakoski, E. & Nurmi, K.: Skull morphology of Finnish muskrats: geographic variation, age differences and sexual dimorphism 1–32
Pekkarinen, M.: Notes on the spawning, egg cleavage and early larval development of the bivalve *Macoma balthica* 71–75
Pekkarinen, M.: Histology of the siphons of *Macoma balthica* (Bivalvia: Tellinidae) 77–95
Pekkarinen, M.: Development of the cercaria of *Lacunovermis macomae* (Trematoda: Gymnophallidae) to the metacercaria in brackish-water *Macoma balthica* (Bivalvia) 237–250
Piironen, J. & Holopainen, I. J.: A note on seasonality in anoxia tolerance of crucian carp (*Carassius carassius* (L.)) in the laboratory 335–338
Pulliainen, E., Lajunen, L. H. J. & Itämies, J.: Lead and cadmium in earthworms (Oligochaeta, Lumbricidae) in northern Finland 303–306
Ranta, E., Saloheimo, M. & Nuutinen, V.: Orientation of the smooth newt (*Triturus vulgaris*) foraging on zooplankton 281–287
Rask, M.: The diet and diel feeding activity of perch, *Perca fluviatilis* L., in a small lake in southern Finland 49–56
Reima, I. & Lehtonen, E.: Microvillar extensions and microfilament system in early mouse embryogenesis 251–259
Rosengren, R.: Competition and coexistence in an insular ant community — a manipulation experiment (Hymenoptera: Formicidae) 297–302
Sarvala, J.: Patterns of benthic copepod assemblages in an oligotrophic lake 101–130
Sunila, I.: Histopathological changes in the mussel *Mytilus edulis* L. at the outlet from a titanium dioxide plant in Northern Baltic 61–70
Tuiskunen, J.: The Fennoscandian species of *Parakiefferiella* Thienemann (Diptera, Chironomidae, Orthocladiinae) 175–196
Tuiskunen, J. & Lindeberg, B.: Chironomidae (Diptera) from Fennoscandia north of 68°N, with a description of ten new species and two new genera 361–393

Vilkamaa, P. & Huhta, V.: Effects of fertilization and pH on communities of Collembola in pine forest soil 167–174
Väisänen, R.: The delimitation of the Gnoristinae: criteria for the classification of recent European genera (Diptera, Mycetophilidae) 197–206
Väinölä, R.: Sibling species and phylogenetic relationships of *Mysis relicta* (Crustacea: Mysidacea) 207–221